Second Year B.Sc Optometry Degree Regular/Supplementary Examinations February 2021

Optometric Optics

(2016 Scheme)

Time: 2 hours   **Max. Marks: 40**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay   **(10)**

1. With a neat ray diagram through the lens, derive the equation for effective power and front and back vertex power of a lens.

Short Notes   **(3x5=15)**

2. Design types and markings on Progressive Addition Lens (PAL)
3. Anti-reflection coating
4. Spectacle considerations (frame, lens, materials) for pediatric population

Answer Briefly   **(5x2=10)**

5. Bifocal designs
6. Lens defects

7. Define prism diopter with diagram and mention its unit.
8. Define decentration. What is the prismatic effect produced by a -10.00DS lens decentered 4mm downwards before an eye
9. Materials used for ophthalmic frames

Give Precise Answer   **(5x1=5)**

10. Chemical names of CR-39 _____
11. What will be the focal length in mm for a lens of power -2.75D
12. Ophthalmic prisms have large apical angles. True or False
13. Varilux Physio is an example of Progressive Addition Lens (PAL). True or False
14. What will be the focal length in mm for a lens of power +4.00 DS

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